

## CITY OF KIRKLAND

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### DEPARTMENT OF PUBLIC WORKS PRE-APPROVED PLANS POLICY

#### Policy D-3: TARGETED AND FULL DRAINAGE REVIEW REQUIREMENTS

Kirkland Municipal Code Chapter 15.52 requires storm drainage design for all land-use, land surface modification and building permits. All projects must collect and convey stormwater runoff in a manner that does not create a drainage problem (or aggravate an existing problem) on adjacent properties. Kirkland has adopted the 2009 King County Surface Water Design Manual (KCSWDM) and the Kirkland Addendum to the 2009 KCSWDM (Addendum) for development in Kirkland, effective January 1, 2010. This policy includes the drainage review criteria and applicable submittal requirements for projects requiring Targeted and Full Drainage Reviews.

#### **I. DRAINAGE REVIEW**

The type of drainage review required for a project is based on project and site characteristics. Below are the levels of drainage review used in Kirkland:

- Small Project drainage review (Types I & II)
- Targeted Project drainage review
- Full project drainage review

##### **A. Small Project Drainage Review (Types I & II)**

Small project drainage reviews are divided into two types, Type I and Type II, primarily based on the amount of impervious surface area. Typical **Type I** projects create between 500 and 1,999ft<sup>2</sup> *new impervious surface areas*<sup>1</sup> and **Type II** projects create or *replace impervious surface*<sup>2</sup> area between 2,000 and 9,999ft<sup>2</sup>. See Policy D-2 for details on small project drainage review criteria and requirements.

##### **B. Targeted Drainage Review**

Targeted drainage review is required for projects that meet the new/replaced impervious area criteria for Small Project Type II, but also have additional characteristics that require a more in-depth level of review, such as:

- Projects containing or adjacent to a flood, erosion, steep slope, or landslide hazard areas,
- Projects containing or adjacent to a sensitive drainage area,
- Projects proposing to construct or modify a drainage pipe/ditch that is 12 in or more in size/depth, or receives runoff from a drainage pipe/ditch that is 12 in or more in size/depth,
- Projects are a redevelopment project proposing \$100,000 or more of improvements to an existing high-use site.

##### **C. Full Project Drainage Review**

Full drainage review is required for any proposed project (new or redevelopment) that will:

- add or will result in 5,000ft<sup>2</sup> or more of new impervious surface, or 10,000ft<sup>2</sup> or more of new plus replaced impervious surface area, OR
- be a redevelopment project on a single or multiple parcel site in which the total of new plus replaced impervious surface area is 5,000ft<sup>2</sup> or more and whose valuation of proposed improvements (including interior improvements and excluding required mitigation and frontage improvements) exceeds 50% of the assessed value of the existing site improvements.

<sup>1</sup>**New impervious surface** means the addition of a hard or compacted surface like roofs, pavement, gravel, or dirt; or the addition of a more compacted surface, like paving over pre-existing dirt or gravel.

<sup>2</sup>**Replaced impervious surface** means any existing impervious surface on the project site that is proposed to be removed (removal of building/concrete/asphalt down to bare soil) and re-established as impervious surface.

## **II. Drainage Submittal Requirements Table**

<b>TARGETED &amp; FULL DRAINAGE REVIEW SUBMITTALS</b>		
<b>Permit or Project</b>	<b>Drainage Review Level</b>	<b>Required for Drainage Review</b>
<b>Subdivisions</b>	Targeted	<ul style="list-style-type: none"> <li>• Engineering Plans (if not already submitted with another permit)</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR) addressing relevant core requirements</li> <li>• ESC Plan</li> </ul>
	Full	<ul style="list-style-type: none"> <li>• Engineering Plans (if not already submitted with another permit)</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR) addressing ALL core requirements</li> <li>• ESC Plan</li> <li>• SWPPP if project is 1 acre or more</li> </ul>
<b>Commercial</b>	Targeted	<ul style="list-style-type: none"> <li>• Engineering Plans</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR) addressing relevant core requirements</li> <li>• ESC Plan</li> </ul>
	Full	<ul style="list-style-type: none"> <li>• Engineering Plans</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR) addressing ALL core requirements</li> <li>• ESC Plan</li> <li>• SWPPP if project is 1 acre or more</li> </ul>
<b>Single Family Residential (one lot)</b>	Targeted	<ul style="list-style-type: none"> <li>• Engineering Plans</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR) addressing relevant core requirements</li> <li>• ESC Plan</li> </ul>
	Full	<ul style="list-style-type: none"> <li>• Engineering Plans</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR) addressing ALL core requirements</li> <li>• ESC Plan</li> <li>• SWPPP if project is 1 acre or more</li> </ul>
<b>Other Projects</b>	Targeted or Full	<ul style="list-style-type: none"> <li>• Engineering Plans</li> <li>• Evaluation of LID Feasibility and Applicability</li> <li>• Drainage Technical Information Report (TIR)</li> <li>• ESC Plan</li> <li>• SWPPP if project is 1 acre or more</li> </ul>

**Notes:**

**Engineering plans** must be signed and stamped by a professional engineer registered in the state of Washington.

**Drainage Technical Information Report (TIR)** guidelines can be found in the 2009 KCSWDM, section 2.3.1.1. Also, see COK Drainage Report Templates at (Question #1):

[http://www.kirklandwa.gov/depart/Public\\_Works/Utilities/Storm\\_Surface\\_Water/Development\\_and\\_Construction/Development\\_Frequently\\_Asked\\_Questions.htm](http://www.kirklandwa.gov/depart/Public_Works/Utilities/Storm_Surface_Water/Development_and_Construction/Development_Frequently_Asked_Questions.htm)

**Low Impact Development (LID)** refers to stormwater techniques designed to disperse or infiltrate runoff on site. See Policies L-1 and L-2 for Stormwater LID Feasibility information.

**Soil Report** is required for infiltration facilities, rain gardens, and pervious pavement.

**Erosion and Sediment Control (ESC) Plan** guidelines are listed in Policy D-12.

**Stormwater Pollution Prevention Plan (SWPPP)** guidelines are listed in Policy D-12.

For clarifications, see **definitions** on page 1-2 in the 2009 KCSWDM.